Business Skills

Modules Roadmap:
You Are Here

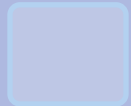|	
NIEM Overview	Exchange Content Modeling
IEPD Concepts	Mapping
How NIEM uses XML (pt. 1)	Subsets
How NIEM uses XML (pt. 2)	Extension and Exchange Schemas
Business Skills	Packaging and Distribution
	Implementation Considerations

Objectives Roadmap

This module supports the following course objective:

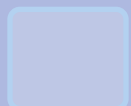Describe what NIEM is.

Describe what an IEPD is.

Comprehend artifacts included in an IEPD.

Develop artifacts included in an IEPD.

Package an IEPD.
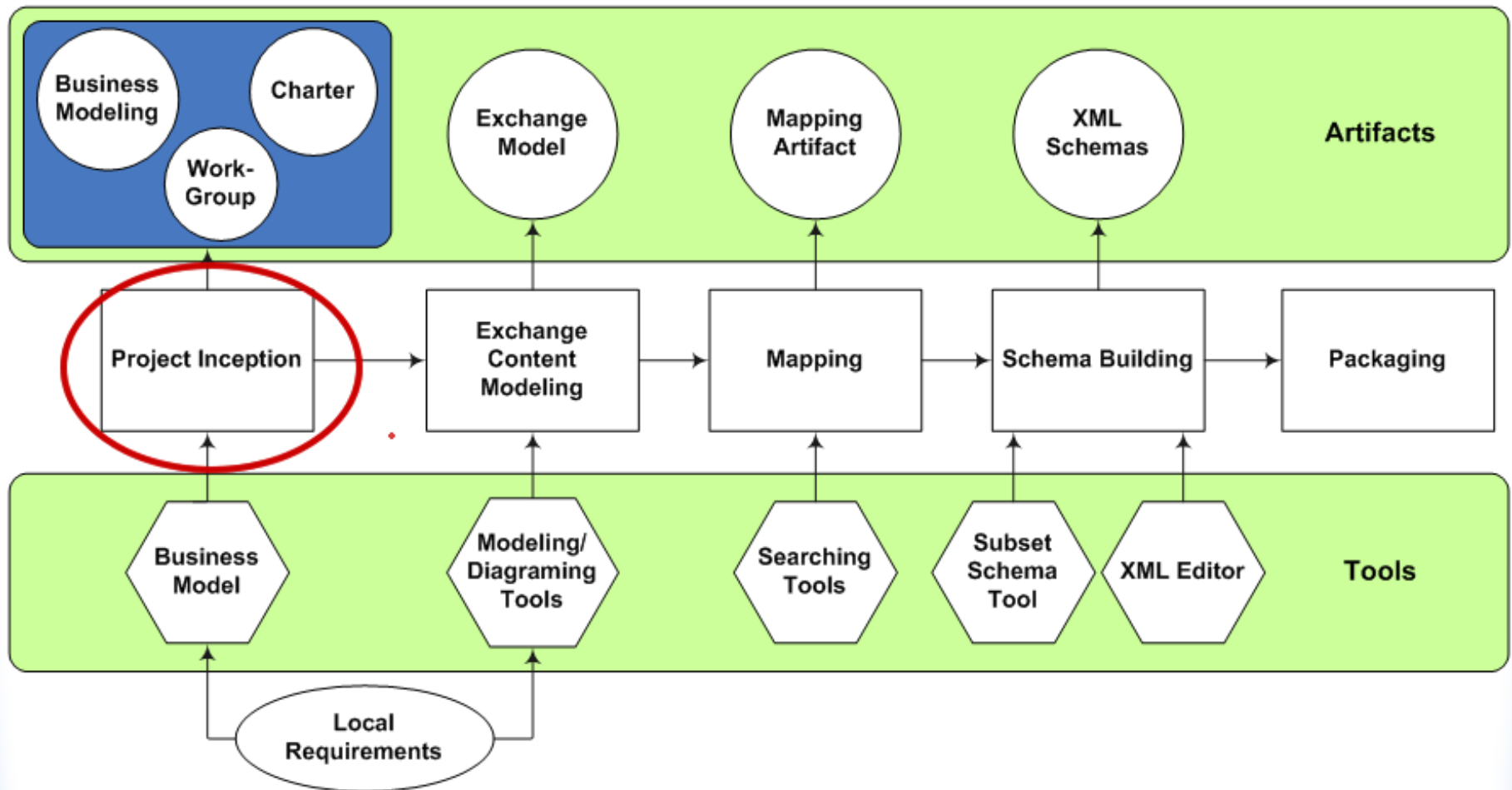
Understand advanced XML concepts, as required by NIEM.

Recognize business skills required to successfully participate in an IEPD development project.

Module Objectives

- After completing this module, you should be able to:
  - Identify requirements gathering techniques for IEPD development efforts.
  - Determine stakeholders for NIEM/IEPD development projects.
  - Identify early stages in the IEPD lifecycle.
  - Identify the functions of a facilitator for IEPD development.
  - Recognize the importance of relationship building and collaboration during development efforts.

IEPD Development

IEPD and Project Lifecycle Relationship

Project Lifecycle	Initiation Phase	Planning Phase	Implementation Phase	Closeout Phase		

IEPD Development Lifecycle	Planning	Requirements	Mapping and Modeling	Build	Assemble and Document	Implement

Conduct High-level Stakeholder Identification

- Who are the stakeholders?
Consider-

  - Who gets the output from the IEPD?

  - Who provides the input?

  - Who has the oversight?

  - Who reaps the rewards?

  - Who suffers the penalties?

IEPD Project Inception

- Identify IEPD requirements objectives.

- Determine requirements.

- Prepare scope statement.

- Determine key resource requirements and roles.

- Identify risks and other issues.

- Identify sponsorship.

Identify IEPD Development Objectives

- Use the SMART Model

  - **S** = Specific

  - **M** = Measurable

  - **A** = Agreed Upon

  - **R** = Realistic

  - **T** = Time constrained

Exercise 12.1: SMART Objectives

- Goal:
  - ◆ Build a home for your son's new puppy.

- Your Task
  - ◆ Make the objectives SMART.

Solution 12.1: SMART Objectives

◆ Build a waterproof doghouse for sons new German Shepherd puppy on Saturday. The dimension requirements are 2 ft wide, 2 ft deep and 20 inches high.

Purpose of Requirements

- To identify and describe a common set of artifacts to document the structure and content of a NIEM-conformant XML instance used in an information exchange to meet a specific business purpose.

- Documents the IEPD process, including:
  - Business requirements of a data exchange.
  - Business rules used to choose appropriate parts of NIEM.
  - Extensions to fit local requirements.

- Follows a standard format outlined at www.niem.gov.

NIEM IEPD Business Requirements

- Reuse IEPDs within and across domains.
- Semi-automate IEPD creation, processing, and integration.
- Enhance IEPD consistency and readability community-wide.
- Facilitate IEPD interoperability.
- IEPDs capture business context.
- Facilitate IEPD life-cycle management.
- Capture requirements for new or modification to existing NIEM content.

Advantages of Formal IEPD Specifications

- Ensure consistency across IEPDs.

- Capture business context that facilitates search and discovery of NIEM components and IEPDs.

- Machine readable and process-able to automate support for the IEPD Lifecycle.

- Encourage and facilitate commercial tool development and value added capabilities.

Source Documents

- Gather paper or electronic source documents that you are exchanging.

- Extract elements required for the exchange.

- Redact confidential information.

- Look at prior standardization efforts.

Requirements-gathering Techniques for NIEM IEPD

- Facilitated group sessions

- Process Modeling

- Use Cases

Facilitated Group Workshops

- **JAD** – Joint Application Development
  - Fact-finding requirements-gathering technique that brings users into the development process as active participants.
- Commits top executives to the planning process.
- Shortens the requirements-specification phase.
- Eliminates features of questionable value.
- Helps to get requirements right the first time.
- Helps to get the user interface right the first time.

Requirements Gathering

- **Process Modeling** – Applied to business work practices; includes work flow charts, cross functional process maps, event models and relationship maps.

- **Use Cases** – Use Cases describe the interaction between a primary system actor—the initiator of the interaction—and the system itself, represented as a sequence of simple steps.

Work Group

- Modeling cannot be done by
  - ◆ Technical people alone.
  - ◆ Business people alone.
- Modeling should be a partnership between developers and business.
- Include business reps from all sides of the exchange.
- Skilled, experienced facilitator is important
- Ideal size: 7, +/- 2.

Work Group Skills

Technical Members	Business Members	Facilitators

Understanding of:
 	
- NIEM
   - Source of good ideas for exchange model
   - Think ahead to mapping
- Data availability and needs at exchange endpoints
- Basic exchange modeling concepts (including O/O design)
	Understanding of:
	
	- Business processes (triggering and subsequent processes)
	- Semantic meaning of data
	
	Ability to "think outside the box"
	
	- As-is processes versus to-be processes
	- Openness to change semantic concepts to align with NIEM
		Organization and project management
		
		Understanding of:
		
		- NIEM
		- Exchange modeling
		   - UML
		   - Object-oriented design
		
		Some understanding of the domain (the more, the better)
		
		Awareness of national reference material

Module Summary

- After completing this module, you should be able to:
  - ◆ Identify requirements gathering techniques for IEPD development efforts.
  - ◆ Determine stakeholders for NIEM/IEPD development projects.
  - ◆ Identify early stages in the IEPD lifecycle.
  - ◆ Identify the functions of a facilitator for IEPD development.
  - ◆ Recognize the importance of relationship building and collaboration during development efforts.

Creative Commons

Attribution-ShareAlike 2.0

You are free to
- Copy, distribute, display, and perform the work
- Make derivative works
- Make commercial use of the work

Attribution—You must give the original author credit

ShareAlike—If you alter, transform, or build upon this work, you may distribute the resulting work only under a license identical to this one

Under the following conditions
- For any reuse or distribution, you must make clear to others the license terms of this work
- Any of these conditions can be waived, if you get permission from the copyright holder

Your fair use and other rights are in no way affected by the above
This is a human-readable summary of the Legal Code (the full license) and Disclaimer

This page is available in the following languages
Català, Deutsch, English, Castellano, Suomeksi, français, hrvatski, Italiano, 日本語, Nederlands, Português, and 中文(繁)

Learn how to distribute your work using this license